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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,593

03/10/2005

Kaoru Inoue

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03/01/2006

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EXAMINER

BISSETT, MELANIE D

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/519,593	Applicant(s) INOUE ET AL.	
	Examiner Melanie D. Bissett	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The prior art rejections have been maintained.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-4 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al. in view of Hu et al.

4. From a prior Office action:

Koyama discloses plastic containers comprising a barrier layer containing an oxygen scavenger and two outer layers of thermoplastic resin (abstract; col. 2 lines 55-68). The gas barrier resin is preferably ethylene-vinyl alcohol (EVOH) and contains 1-1000%, preferably 5-200% by weight of the oxygen scavenger (col. 7 lines 17-46). The outer layers preferably contain polyolefins (col. 8 line 63-col. 9 line 12). However, the reference does not disclose the applicant's claimed anthraquinone component. Hu teaches that oxygen scavenging dyes, preferably sodium anthraquinone β -sulfonate, are dark red in reduced state but turn colorless in an oxidized state, thus providing a dye for indicating the amount of oxygen transported through a packaging material (abstract). This component is noted by the applicant as having the claimed percent weight loss, placement of substitution, and solubility. Thus, it would have been prima facie obvious to use the anthraquinone to provide indicative dyes for the Koyama packaging.

5. Claims 5-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al. in view of Hu et al. as applied to claims 1-4 and 7-8 above, and further in view of Nippon Synthetic.

6. From a prior Office action:

The references apply as above, failing to teach the inclusion of an acid component and failing to specify the water content of the EVOH. Koyama does teach the method of melt mixing the components and extruding them (col. 9 lines 55-68). Nippon Synthetic teaches extruded EVOH materials comprising an EVOH polymer and small amounts of acid components, where the water content reaches up to 50% (abstract). The materials have improved transparency, gas barrier

properties, and film appearance in a continuous process. Thus, it would have been prima facie obvious to include any amount of acid and to choose any water content sufficient to optimize transparency, gas barrier properties, and appearance in the continuous process of Koyama and Hu.

Response to Arguments

7. In response to the applicant's arguments that the Koyama reference teaches away from water-soluble oxygen scavengers, it is noted that the reference as a whole suggests any oxygen scavengers customarily used in the field. Those compounds having a reducing property and those being substantially insoluble in water are preferred. It is noted that the reference is not bound to its preferred embodiment, and it is also noted that the Hu reference teaches the reducing capabilities of the anthraquinone compound. Both references are drawn to packaging films concerned with oxygen permeability. The Koyama reference teaches that oxygen scavengers are incorporated into a polymeric layer to aid in the oxygen barrier capabilities of the film. The reference suggests inorganic and organic materials to be incorporated into the barrier layer. Hu teaches other oxygen scavenger materials customarily used in the oxygen barrier film/packaging art, where the suggested materials have the advantage of changing color and thus indicating when a large quantity of oxygen has permeated the film. For this reason and as pointed out above, one skilled in the art would have been motivated to use such an oxygen scavenger material to indicate oxygen permeation. Since the Koyama reference suggests that all oxygen scavengers customarily used in the field can be used, and since the compounds taught in Hu are originally solid particles, it is the examiner's position that one skilled in the art would have a reasonable

expectation that the compound can be incorporated into the films of Koyama's invention.

8. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (571) 272-1068. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melanie D. Bissett
Primary Examiner
Art Unit 1711

mdb